Conservation CONNECTION

Publication of the Bureau of Reclamation, Mid-Pacific Region
May 2004 • Volume 10, Issue 2

Water 2025: Preventing Crises and Conflict in the West

Written by Dennis Perkins with excerpts from the Water 2025: Preventing Crises and Conflict in the West Fact Sheet

A serious crisis is headed our way. If we do not take notice, we may not have enough water to meet the ever-increasing demands from urban, agricultural, and environmental uses. We need to take a more hands-on approach and help alleviate this future burden. These are the main conclusions contained in Water 2025: Preventing Crises and Conflict in the West.

Last year, President George W. Bush, in an effort to lessen this burden, launched the *Western Water Initiative.* As a part of this initiative, the Department of the Interior created Water 2025, a project that would help manage our limited water resources. As part of this effort, the Bureau of Reclamation (Reclamation) introduced a new $4 million Challenge Grant Program which focuses on helping areas of the West hard hit by chronic water supply shortages to develop conservation water efficiency projects. This year Reclamation received over 100 proposals requesting funding under the program.

> **"Water 2025 is intended to focus attention on the reality that explosive population growth in western urban areas, the emerging need for water for environmental and recreation uses, and the national importance of the domestic production of food and fiber from western farmers and ranches is driving major conflicts between these competing uses of water.**
>
> **Today, in some areas of the West, existing water supplies are, or will be, inadequate to meet the demands for water for people, cities, farms and the environment even under normal water supply conditions.**
>
> **Water 2025 recognizes that states, tribes, and local governments should have leading role in meeting these challenges, and that the Department of the Interior should focus its attention and resources on areas where scarce federal dollars can provide the greatest benefits to the West and the rest of the Nation."**

Questions have been asked regarding this new initiative. One question asks whether Water 2025 replaces the Water Conservation Field Services Program (WCFSP) that is currently being operated through Reclamation's Regional and Area Offices.

This publication can be found at: www.doi.gov/water2025/water2025-report/page1.html

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What's Inside...

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Articles, ideas, and suggestions are welcome, as are notices of upcoming events, meetings or activities. We reserve the right to edit material, and publication is not guaranteed. Please send all material to Shani Lee at the above mailing address or via e-mail at svlee@mp.usbr.gov.

CVPIA Corner

Draft Refuge Criteria Available

On Thursday, April 15, 2004, the Bureau of Reclamation (Reclamation) held a workshop on the Draft *Criteria for Developing Refuge Water Management Plans* (Draft Refuge Criteria). This workshop provided an opportunity for the public to review and comment on the Draft Refuge Criteria and to aid the Refuges in understanding the process for developing and submitting their Refuge Water Management Plans.

Why a Draft Refuge Criteria?

In 1995, the Department of the Interior engaged in a Central Valley Project Improvement Act (CVPIA) administrative review process. During this process, the urban and agricultural contractors, environmental interest groups, and the public in general provided input to Reclamation and the U. S. Fish and Wildlife Service regarding the need for Refuge managers to engage in formal water management planning. As an outcome of this process, in 1998 an Interagency Coordinated Program Report was prepared which provided the foundation for the current Refuge Criteria efforts by outlining wetlands management issues and Best Management Practices. Since that time Reclamation has been working with a team of Federal, State, and local refuge representatives in finalizing the Criteria.

To whom will the Refuge Criteria apply?

The finalized Refuge Criteria will apply to National Wildlife Refuges, State Wildlife Areas, and private wetlands that hold water supply contracts with Reclamation. The Draft Refuge Criteria puts forth the proposed steps for developing and submitting Refuge Water Management Plans.

For a copy of the Draft Refuge Criteria, please visit Reclamation's water conservation website at: www.usbr.gov/mp/watershare. For more information on the Draft Refuge Criteria, please contact Lucille Billingsley at (916) 978-5215 (TDD 978-5608), or e-mail her at: lbillingsley@mp.usbr.gov.

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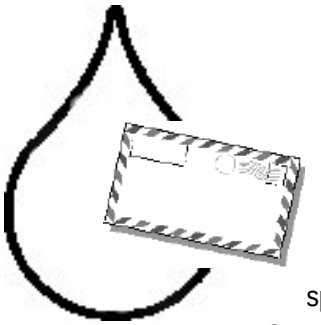
The answer is no, Water 2025 is not replacing the WCFSP. Water 2025 in fact, is a supplementary program targeting areas of critical need.

Another question asks whether Water 2025 duplicates existing Water Conservation programs. Water 2025 is different because it allows the Department to have a "larger vision" of possible solutions for troubled areas and provides discretion to shift funding to the most productive proposals. The WCFSP will continue to operate under the direction of each Regional Office and utilize the Area Office staff to implement the program.

In conclusion, Water 2025 is still being developed. The intent is to supplement an already existing program, not to replace it. If you are with a water or irrigation district that has a connection to a Reclamation program or project, you may want to consider starting now on developing a proposal for the next year's Water 2025 grant proposal submission request.

For more information, please visit the Water 2025 website at: www.doi.gov/water2025/



Conservation Talk

Now that Spring is here, more and more of you are washing your vehicles to spruce them up. But have you considered what "washing" does to the watershed? If you've seen that foamy "gunk" floating on top of the water in your local river or waterway, you've seen the affects that waste material can have on a watershed. To test your watershed savvy, take the following quiz:

1. How many gallons of water are used to wash your vehicle in your driveway?
   a. 36
   b. 66
   c. 96
   d. 116

2. Where is the best place to wash your vehicle?
   a. On the street
   b. In your yard
   c. At a commercial car wash
   d. At a community fund raiser

3. How much water does a commercial car wash use?
   a. Same as washing at home
   b. 60% MORE than washing at home
   c. 60% LESS than washing at home
   d. none of the above

4. How many of you prefer to wash your vehicles at home?
   a. 25 %
   b. 35%
   c. 45%
   d. 55%

To find out more about how to protect and preserve your watershed, please visit the Conservation Technology and Information Center website at: www.ctic.purdue.edu/CTIC/CTIC.html

This section was created for those that have questions pertaining to water conservation practices or water-use efficiency matters. If there is anything that you would like to ask our water conservation specialists, please send an e-mail to svlee@mp.usbr.gov or send your questions in writing to the address on the front page.

Answers: 1) d. 116 2) c. At a commercial car wash 3) c. 60% LESS than washing at home 4) c. 45%

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The Klamath Project Uses an Innovative Product to Reduce Canal Seepage

Written by Jon Hicks

Just prior to last year's irrigation season, the Klamath Basin Area Office purchased 15,000 pounds of Linear Polyacrylamide, commonly referred to as PAM, for irrigation districts to use in order to reduce seepage in canals. Due to the limited amount of time for applying the PAM and the lack of an efficient application system, the irrigation districts were only able to apply approximately 2,500 pounds last year. This year, the irrigation districts are using new PAM Blower Systems that were designed by the Klamath Basin Area Office and a local manufacturing company, S&S Manufacturing, to apply approximately 8,000 to 10,000 pounds of PAM into some of the 1,400 miles of canals, lateral and drains within the Klamath Project.

Photo of PAM being applied to a canal in the Klamath Project

The irrigation districts were very impressed with last season's results despite the limited application of PAM. Enterprise Irrigation District has traditionally had to pump a minimum of 32 cubic feet per second (cfs) into their main canal in order to be able to supply any water to its customers at the end of the system. After applying PAM, it was initially able to reduce the required output to 24 cfs and achieved an eventual output of 27 cfs. The district also noticed that the drain ditch adjacent to the main canal, which was usually full of water, was now dry throughout most of the irrigation season. Both Enterprise and Langell Valley Irrigation Districts were also able to eliminate enough seepage to dry up several fields that had been saturated from seepage for many years.

Application costs of PAM are very reasonable compared to traditional forms of canal lining. A cost comparison study was conducted between a rubber liner and PAM assuming a 25-year lifespan for the rubber liner and yearly applications of PAM. The annualized cost of the rubber liner was approximately $1,200 per year per acre of canal while the cost of PAM application was approximately $100 per year per acre of canal. Based on this initial year's results, PAM shows great promise for widespread use in reducing seepage throughout irrigation canals, laterals, and drains.

In households not utilizing water-efficient fixtures, toilets used the most water on a daily basis (20.1 gallons per person per day). Clothes washers were the second largest water users (15 gallons per person per day) and showers were third (13.3 gallons per person day).

Urban Council to Conduct Research Studies of Avoided Cost and Environmental Benefit

Reprinted with the permission of Mary Ann Dickinson of the California Urban Water Conservation Council

The California Urban Water Conservation Council (CUWCC) is about to undertake a research project of significant proportions: How to best quantify the avoided costs and capital costs associated with new water supply development—costs which are avoided when water conservation programs produce "saved water"— and how to estimate the environmental benefits and costs connected to those water conservation programs. Until now, there has not been any easy way to estimate these numbers that are very important to assessing the true value of water conservation in California.

CUWCC has been giving this some thought over the years. In 1996, CUWCC issued guidelines to advise water agencies on how to calculate the costs and benefits associated with water conservation programs. That document is still available from CUWCC, and is widely used by all its member agencies. CUWCC has also built Excel spreadsheets to assist its members further. Unfortunately, neither the guidelines nor the spreadsheets address utility avoided cost calculations in detail, nor do they provide water suppliers with the theoretical underpinnings and practical methods for making such calculations. Likewise for environmental benefits and costs.

Research such as this, however, is expensive. In 2002, through a 3-way agreement with USBR, DWR, and CalFed, CUWCC received a grant. As part of this cooperative agreement, CUWCC is now able to develop a more detailed guidance and methods for calculating utility avoided costs and environmental costs and benefits. As a first step, CUWCC undertook a review of the literature addressing utility avoided cost calculation, a copy of which is available by download from CUWCC's Web site (www.cuwcc.org). CUWCC is now developing a specialized research team to begin the actual work involved in these two projects over the next two years. The specific research work will include creating:

1. Methods to estimate avoided water and wastewater utility operating and capital costs of production, transport, storage, water treatment, wastewater treatment, water supply distribution, and wastewater collection associated with implementation of urban water conservation Best Management Practices, as specified in the **Memorandum of Understanding Regarding Urban Water Conservation in California**. CUWCC is looking for methods that are theoretically sound but capable of being implemented by both small and large water and wastewater utilities in California; and

2. Methods to estimate and to attach monetary values to the environmental benefits and/or avoided environmental costs associated with implementation of urban water conservation Best Management Practices. Similar to the avoided cost calculations, the method must be relevant for both small and large water and wastewater agencies. It is likely that the research produced here will also be of great interest to CALFED and other water resource planning agencies.

For more information about this study, please contact the CUWCC at 916-552-5885 or visit the CUWCC website at: www.cuwcc.org

Calendar of Events

2004 Water Conservation EXPO May 25, 2004 San Francisco, California For more info, call 415-622-0100	**Get W.E.T** June 6, 2004 10 a.m. to 12 noon For more info, visit the ARWEC at: www.usbr.gov/mp/arwec/programs/GetWet.htm or call 916-989-7150
Irrigation Training and Research Center Agricultural Irrigation System Evaluation Classes 1 & 2 June 14-16, 2004 and June 16-18, 2004 For more info, visit the ITRC at: www.itrc.org/classes/classindex.html or call 805-756-2530	**Bay Delta Tour** June 16-18, 2004 For more info, visit the Water Education Foundation at: www.water-ed.org/

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